

EXECUTIVE SUMMARY

Updated February 21, 2002

Mine Name: Papoose
Operator: Cotter Corporation
28151 DD Road
P. O. Box 700
Nucla, Colorado 81424
Telephone: (970) 864-7347 FAX (970) 864-7347
Contact Person: Glen Williams / Jon Showalter

I.D. No: M/037/084
County: San Juan
New/Existing: LMO
Mineral Ownership: State of Utah
Surface Ownership: State of Utah
Lease No.(s): ML45609
Permit Term: Life of Mine

This summary is updated for an amendment approved February 15, 2002, wherein the operator added 27 acres to the permitted disturbed area.

Life of Mine: about 7 years with what is currently permitted; more area may be added later

Legal Description: Portions of the NW/4; NE/4 SW/4; and W/2 SE/4 of Section 36, Township 29 1/2 South, Range 24 East, SLBM

Mineral(s) to be Mined: Limestone

Mining Methods: Shallow open pit mining by drilling and blasting.

Acres to be Disturbed: 47 acres

Present Land Use: Cattle grazing and wildlife habitat

Postmining Land Use: Cattle grazing and wildlife habitat

Variances from Reclamation Standards (Rule R647) Granted: R647-4-111.12 Topsoil Redistribution.

Cotter will salvage all of the available topsoil at the site, however, they propose to replace the salvaged soil in a 12 inch depth over small areas within the disturbance to create "islands" rather than spread a thin veneer of soil over the entire disturbed area. The operator anticipates salvage of approximately 37500 cubic yards of soil. This will provide soil cover for approximately 23.2 acres of the 47 acre disturbed site. Due to the sparse topsoil at the site, a variance to R647-4-11.13.11 Revegetation Success Standard is granted on those areas which do not receive topsoil. Reject limestone fines remaining at the end of mining will be used as a subsoil layer.

Soils and Geology:

Soil Description: Soils are of the Longburn and Arabrab series on mesa tops. Texture is fine sand to sandy loam. These soils are shallow, well drained and have low fertility.

pH: 8.0

Special Handling Problems: The soil may be difficult to salvage in places because it is so shallow over bedrock.

Geology Description: The limestone deposit consists of the upper unit of the Pennsylvanian aged Hermosa Formation. The proposed mine site lies at an elevation ranging from 6650 to 6740 feet of elevation above sea level. The deposit slopes from 8-16% to the west toward an unnamed intermittent tributary of the Big Indian Wash. Waste rock generated by the mining operation will consist of fine reject material from the very thin

interbedded friable quartz sandstone lenses and minor amounts of coarser material which are rejected due to quality (excessively weathered, silica nodules, etc.)

Hydrology:

Ground Water Description: No ground water has been encountered in the mining operation. Since the mine site is near the crest of the ridge there is insufficient recharge to contribute ground water to the area, especially at the shallow pit depth of 20 feet. All ground water flow is through faults and fractures in the limestone and into the underlying permeable sandstone. No seeps or springs are noted in the area.

Surface Water Description: Storm Water Permit No. UTR000257 was issued by the Utah Division of Water Quality based on an adequate storm water handling plan.

Water Monitoring Plan: There is no water monitoring currently taking place. All surface water used in the operation is being purchased from the Redd Ranches in La Sal, Utah, and hauled to the site. Erosion control measures are being used to treat runoff during operations and at final reclamation of the site, therefore limiting any sediment-laden water from leaving the site.

Ecology:

Vegetation Type(s); Dominant Species: Pinyon pine, Utah juniper, muttongrass, needle and thread grass, Indian ricegrass, Torrey ephedra, Datil yucca.

Percent Surrounding Vegetative Cover: 13.5%

Wildlife Concerns: None.

Surface Facilities: When operations are in progress, a large truck van trailer with a control room, generator set, and tool and lubricant storage room is on site. A small camp trailer is currently serving as an office/storage/toilet facility. A larger enclosed portable toilet may be brought in if needed. A fueling station has been established within a lined and bermed area to control spillage.

Mining and Reclamation Plan Summary:

During Operations:

Trees and brush will be stripped, windrowed, or piled using a bulldozer. The thin, sporadic soil will be stripped and stockpiled. Blast holes will be drilled with an air track drill equipped with a water injection system to prevent all but a very minute amount of dust to be produced. Explosives will be loaded and the holes shot about two or three times a year. All possible approaches to the site will be closed by barriers, fencing or guarded during blasting. The maximum vertical highwall height will be approximately 20 feet. The broken rock will be mucked and trammed to the portable jaw crusher using a rubber tired loader. The limestone rock will be crushed and screened to a product size of minus 10 inch to plus 1/2 inch. The undersize reject pile will be sprayed with water as necessary to control fugitive dust, and dust emissions are regulated under Approval Order DAQE-378-95 from the

Division of Air Quality. The crushed product will be transported by conveyor or loader to the stockpile area. The product is then loaded onto trucks for shipment. The crushing and stockpile areas will periodically be moved to the southeast as the pit advances in that direction. Reclamation will be done concurrently with mining as much as possible; however, the operator has had to continue using most of the pit area for crushing and loading operations and has so far not been able to do concurrent reclamation.

After Operations:

Before any portion of the pit is abandoned, the highwall will be cut or backfilled with course reject material to a slope of less than 2h:1v. Some of the fine reject material will be used as a subsoil. The available topsoil will be spread at a depth of 12 inches to form small islands, and the disturbed area will be ripped or otherwise scarified as conditions allow. If there is adequate fine reject material to make at least twelve inches of substitute subsoil, the topsoil will be spread over the entire site to a depth of about six inches. The area will be broadcast seeded in the fall. Remaining windrowed trees and any large rocks remaining after sizing operations will be scattered and/or piled across the reclaimed area concentrating on those areas more prone to erosion. This should help with erosion control and will also increase wildlife habitat diversity. The site will be fertilized with 40 pounds per acre of nitrogen and 60 pounds per acre of phosphorous following seeding.

Surety:

Amount: \$94,700 posted with DOGM based on Division's reclamation estimate

Form: Surety Bond – American Home Assurance Co., [REDACTED]

Renewable Term: Year 2006 Dollars